

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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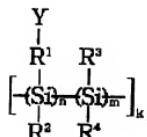
APPLICATION DATE : 21-11-95  
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APPLICANT : SHIN ETSU CHEM CO LTD;

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TITLE : PRODUCTION OF  
ELECTROCONDUCTIVE POLYMER



ABSTRACT : PROBLEM TO BE SOLVED: To produce an electroconductive polymer, excellent in mechanical strength, stabilized in electroconductivity and processable into a film, a coating film, etc., by cross-linking a pyrrolyl group-pendant polysilane with an oxidizing compound and then doping the resultant cross-linked compound with iodine in the vapor phase.

SOLUTION: A pyrrolyl group-pendant polysilane represented by the formula {Y is a substituted or an unsubstituted N-pyrrolyl group; R<sup>1</sup> is a 1-12C bivalent hydrocarbon; R<sup>2</sup> to R<sup>4</sup> are each a 1-12C monovalent hydrocarbon or represented by the formula R<sup>1</sup>-Y; 0<(n)≤1; 0≤(m)<1; [(n)+(m)] is 1; (k)≥6} is cross-linked with an oxidizing compound (e.g. ferric chloride) and the resultant compound is then doped with iodine in the vapor phase to afford the objective electroconductive polymer capable of readily providing a film or a coating film, excellent in mechanical strength, stabilized in electroconductivity and applicable to various flexible switches, battery electrodes, solar cells, sensors, antistatic protecting films, casing units, etc., for electromagnetic shields.

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